CLAIMS

1. Device for mixing, homogenizing, extracting, or slurrying materials, in particular infectious or malodorous or chemically aggressive material (71), in a laboratory test vessel (70) comprising a lid (10) that can be hermetically sealed to the test vessel, a stirrer element (30) being provided in the lid (10) for processing of the material (71) that can be placed into the laboratory test vessel (70), said stirrer element being connected to a coupling piece (50), and said stirrer element (30), which rotates about a longitudinal axis of the laboratory test vessel (70) being provided with cutting and/or crushing elements (31; 33, 35) situated directly adjacent to cutting edges (42, 44; 41, 43, 45) on a retainer sleeve (40), wherein the stirrer element (30) is a hollow cylinder (53) and is provided with a central sealing cap (32).

2. Device according to Claim 1, wherein the central sealing cap (32) is a membrane (32) that can be pierced or broken through.

3. Device according to Claim 1, wherein the cutting and/or crushing elements include coarse cutting blades (31) and crushers (33, 35) that are situated directly adjacent to the cutting edges, which are formed by projections (42, 44) and grooves (41, 43, 45), the cutting and/or crushing elements being made of plastic or metal.

4. Device according to Claim 1, wherein the retainer sleeve (40) is provided as an auxiliary element that has an inner opening and that can be pushed on or removed.

5. Device according to Claim 1, wherein the lid is a disposable lid (10) and comprises a screw closure or a snap closure that is complementary to a corresponding element on the laboratory test vessel (70).

6. Device according to Claim 1, wherein the laboratory test vessels (70) are cylindrical or parallelepiped in shape, and the laboratory test vessels (70) are made of plastic or glass.

7. Device according to Claim 1, wherein the processing of the material (71) comprises crushing, mixing, homogenization, extraction, and slurrying.

8. Device according to Claim 1, wherein the lid (10) has a rubber sealing ring, a clamping seal, or a hydraulic labyrinth lip seal (22, 36) in order to form a hermetic seal between an interior (71) of the laboratory test vessel (70) and the external environment.

9. Device according to Claim 1, wherein the coupling piece (50) has a hollow construction and includes an inner six-point quick coupling ring (50), so that rotational energy can be supplied mechanically from outside.

10. Device according to Claim 1, further comprising a heat-conducting drive axle in the lid, for conducting thermal energy can into the laboratory test vessel (70) or from the vessel to outside.

11. Device according to Claim 1, wherein electrical lines or light waveguides are routed through an area (26) in the lid, to sensors or to heating or Peltier elements in an interior of the laboratory test vessel (70).

12. Device according to Claim 1, wherein when the laboratory test vessel (70) is standing upright, a homogenate therein can be analyzed or tempered manually or by machine through the membrane (32), which can be pierced or broken through, in the disposable lid (10) without having to remove the lid (10) from the laboratory test

vessel (70).

13. Device according to Claim 12, wherein the pierced or broken-through membrane (32) in the disposable lid (10) can be hermetically resealed in an area (54) using a snap lid made of plastic or metal.